MITSUBISHI

black DIAMOND

CCD COLOR CAMERA

BDC4803VFD

USER MANUAL

CONTENTS

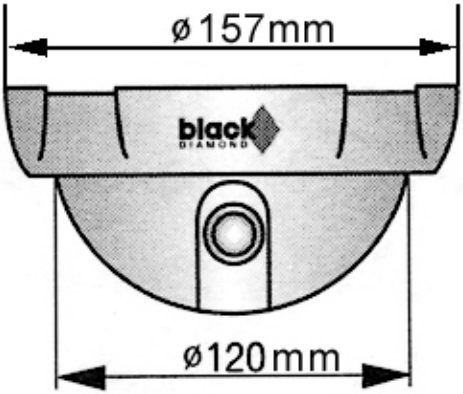
PRECAUTIONS

1. **Do not attempt to disassemble the camera.**
   There are no user serviceable parts inside. Ask a qualified service person for servicing
2. **Handle the camera with care.**
   Do not misshandle the camera. Avoid striking, shaking, etc. Improper handling or storage could damage the camera.
3. **Do not expose the camera to rain or moisture, or try to operate it in wet areas.**
   Turn the power off immediately and ask a qualified service person for servicing. Moisture can damage the camera.
4. **Do not use strong or abrasive detergents when cleaning the camera body.**
   Use a dry cloth to clean the camera when dirty. In case the dirt is hard to remove, use a mild detergent and wipe gently. Afterwards, wipe off the remaining part of the detergent with a dry cloth.
5. **Clean the Objective faceplate with care.**
   Do not clean the **Objective** with strong or abrasive detergents. Use lens tissue or a cotton tipped applicator and ethanol.
6. **Clean the Sphere with care.**
   Do not clean the **Sphere** with strong or abrasive detergents. Use lens tissue or a cotton tipped applicator and glass cleaner.
7. **Never face the camera towards the sun. Do not aim the camera at bright objects.**
   Whether the camera is in use or not, never aim it at the sun or other extremely bright objects. Otherwise, blooming or smear may be caused.
8. **Do not operate the camera beyond the specified temperature, humidity or power source ratings.**
   Use the camera in conditions where temperature is between –10 °C ~ +50 °C, humidity is below 80% without moisture and the power source is DC 12 V (± 10%).

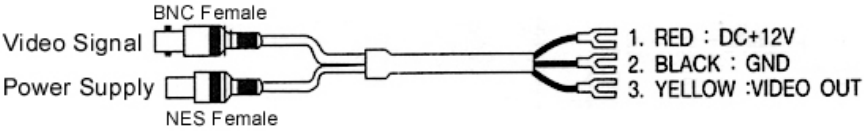
PACKING CONTENTS

1. Usermanual

2. Camera



3. Adapter Cable



4. Screws

2 x Fixing Screws

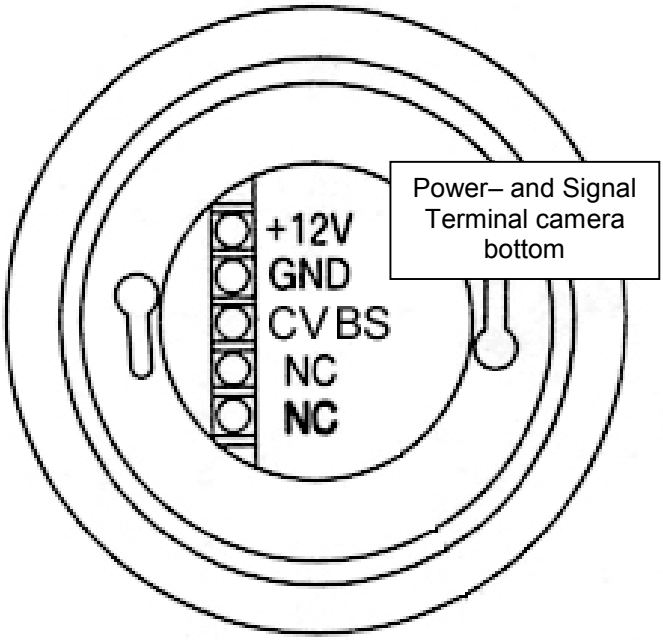
FEATURES AND FUNCTIONS

- Auto Light Control (ALC) function
- Electronic Light Control (ELC) function
- Automatic Gain Control (AGC) function
- Automatic Tracing White Balance (ATW) function
- Internal Synchronisation
- Minimum Illumination of 1 Lux @ F2.0
- Signal to noise ratio > 45 dB (AGC off)
- Horizontal resolution of 480 TV lines.
- OLPF Built in
  Unlike usual cameras, this camera filters unnecessary noise signals in dark view and transmits them with more clear picture signals. This makes it possible to eliminate unpleasant dark noises in low lux conditions and ensures an extraordinary clear picture in any light condition.

INSTALLATION

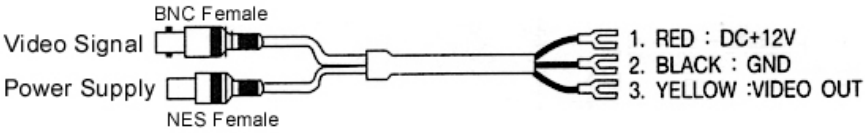
1. Power connection

Connect the DC 12V powercable with the + 12V- and GND Terminal.



+ 12V = +12V DC (±10%)
GND = GND - Power + CVBS Shield
CVBS = CVBS Signal
NC = No Connection

In addition to use the screw terminal you can connect the Adapter cable to this terminal and then you can connect power by NES Plug and the video signal by BNC Plug.



- **Resistance of copper wire (at 20 °C)**

Copper wire size	0,22 mm²	0,33 mm²	0,52 mm²	0,83 mm²
Ω / m	0,078	0,05	0,03	0,018

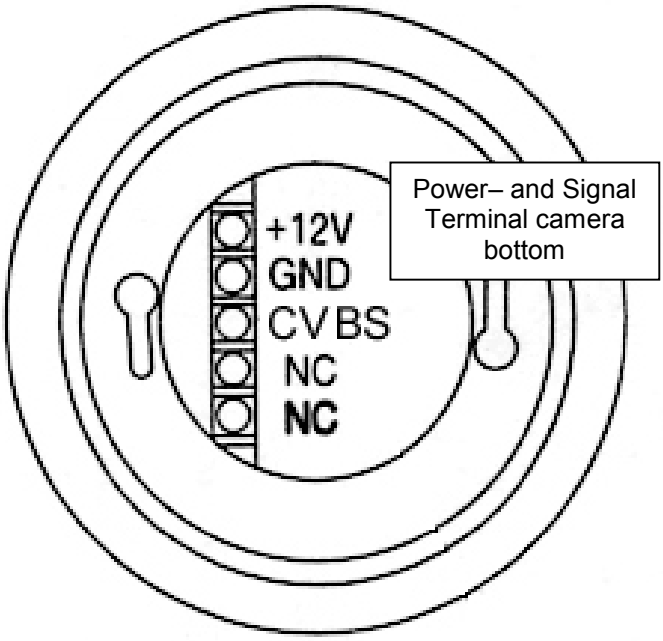
- **Calculation of max. cable length between camera and power supply:**

10,5V DC ≤ V – (R x 0,42 x L) ≤ 16V DC
L : Cable length (m)
R : Resistance of copper wire (Ω / m)
V : DC output voltage of power supply (V DC)
L standard = V - 12 / 0,42 x R
L min. = V - 16 / 0,42 x R
L max. = V - 10,5 / 0,42 x R

2. Video cable

- It is recommended to use a monitor with a resolution at least equal to that of the camera.

- Connect the Video cable with the CVBS and GND Terminal.



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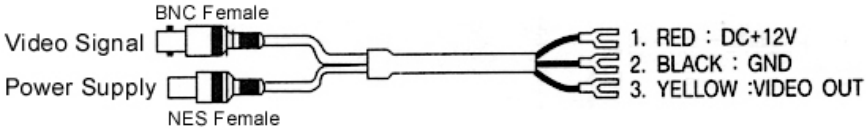
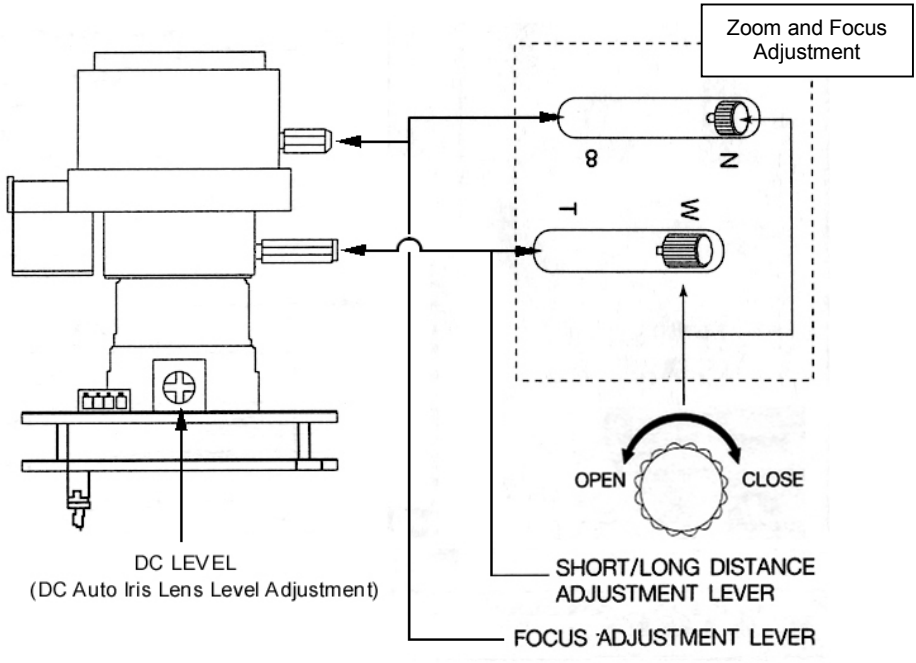


- The max. extensible coaxial cable length between camera and the monitor is shown below.

Coax cable type	RG-59/U (3C-2V)	RG-6U (5C-2V)	RG-11/U (7C-2V)	RG-15/U (10C-2V)
Recommended max. cable length (m)	250	500	600	800

3. View angle and focus Adjustment

Open the Dome Cover to adjust the angle of view (Zoom) and focus



To adjust focus and the viewing angle (Zoom) you have to loosen the adjustment lever by turning left, afterwards you can slide the adjustment lever right and left.
Adjust at first the viewing angle and afterwards the focus to get a sharp picture.
After adjustment fix the adjustment lever by turning right.

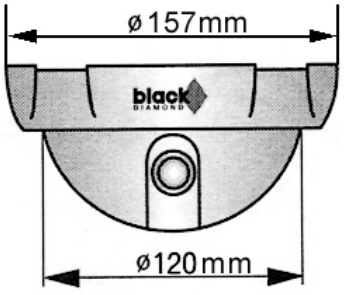
Min. – max. viewing angle

	Max. W (Wide) 4 mm	Max. T (Tele) 8 mm
Horizontal	70,1°	35,3°
Vertical	11,6°	26,5°

DC Level — DC Auto Iris Lens Level Adjustment. Adjust under normal light conditions the DC Level with a fine screw driver to the best picture performance.

SPECIFICATION

Model Name	BDC4803VFD
Signal Standard	PAL
Objective	f : 4 – 8 mm
CCD – Chip	1/3" Super HAD CCD
Scanning System	2:1 Interlaced
Scanning Frequency	H: 15.625 kHz V: 50 Hz
Total Pixels	795 (H) x 596 (V) app. 470.000 Pixel
Effective Pixels	752 (H) x 582 (V) app. 440.000 Pixel
Horizontal Resolution	480 Lines
Electronic Shutter	1/50 – 1/100000 auto
Automatic Iris Control	Yes
S/N Ratio	> 45 dB (AGC off)
Sensitivity	1.0 Lux @ F 2.0
Sync System	Internal Sync
White Balance	Automatic
Function	BLC, ALC, AGC
Video Output	1 Vpp 75 Ω unbalanced
Power Source	DC 12 V (± 10 %)
Power Consumption	max. 180 mA (2,2 W)
Operating Temperature	-10 °C ~ +50 °C
Operating Humidity	max. 80 % without dew
Dimensions (W x H x D mm)	151 mm ∅ Mounting Ring 120 mm ∅ Sphere
Weight (without Lens)	570 g
Approvals	CE EN 55022 EN 55024 EN 61000



ADDRESS

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Changes for the Better

Electronic Visual Systems

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